

What is claimed is:

1. A light emitting device having a plurality of light emitting elements stacked on one face of a supporting base.

2. A light emitting device comprising:

a supporting base;

a first light emitting element having a first substrate, provided on one face of the supporting base; and

a second light emitting element having a second substrate, provided on the side of the first light emitting element opposite to the supporting base.

3. A light emitting device according to claim 2, wherein the first substrate is transparent in the visible region.

4. A light emitting device according to claim 2, wherein the first and second light emitting elements can emit light of different wavelengths.

5. A light emitting device according to claim 2, wherein the first light emitting element has a semiconductor layer containing at least one of Group 3B elements and at least nitrogen (N) from Group 5B elements.

6. A light emitting device according to claim 5, wherein the first

substrate is made of either a Group III-V compound semiconductor of the nitride system containing at least one of Group 3B elements and at least nitrogen (N) from Group 5B elements, or sapphire (Al_2O_3).

7. A light emitting device according to claim 2, wherein the first light emitting element has a light emitting portion on the first substrate on the side thereof on which the supporting base is disposed.

8. A light emitting device according to claim 2, wherein the second light emitting element has a light emitting portion on the second substrate on the side thereof on which the first light emitting element is disposed.

9. A light emitting device according to claim 2, wherein the second light emitting element has a plurality of light emitting portions of different output wavelengths.

10. A light emitting device according to claim 2, wherein the second substrate is made of gallium arsenide (GaAs).

11. A light emitting device according to claim 2, wherein the second light emitting element has a semiconductor layer containing at least gallium (Ga) from Group 3B elements and at least arsenide (As) from Group 5B elements.

12. A light emitting device according to claim 2, wherein the second light emitting element has a semiconductor layer containing at least indium (In) from Group 3B elements and phosphorus (P) from Group 5B elements.

13. A light emitting device according to claim 2, wherein the second light emitting element has a semiconductor layer containing at least one element selected from the group of Group 2A or 2B elements consisting of zinc (Zn), cadmium (Cd), mercury (Hg), beryllium (Be) and magnesium (Mg), and at least one element selected from the group of Group 6B elements consisting of sulfur (S), selenium (Se) and tellurium (Te).

14. An optical device having a light emitting device in which a plurality of light emitting elements are stacked on one face of a supporting base.

15. An optical device on which a light emitting device is mounted, the light emitting device comprising: a supporting base; a first light emitting element having a first substrate, provided on one face of the supporting base; and a second light emitting element having a second substrate, provided on the side of the first light emitting element opposite to the supporting base.